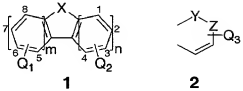
CLAIMS

1. An organic molecule of the formula **1**



1 **2**

wherein m and n are the number of fused 6-membered aromatic rings connected to each side of the central moiety such that the first 6-membered aromatic ring, if present, is connected as shown in **1**; and

wherein Q_1 and Q_2 are one of the same or different fused rings shown as **2** whereby one ring shown as **2** is connected at any of the two adjoining positions C_1 to C_4 at any orientation and another ring shown as **2** is connected to any of the two adjoining positions C_5 to C_8 at any orientation of the outer aromatic rings shown in **1** which may also include one or many substituents individually selected from the group consisting of R_1, a fused 5-membered ring or a 6-membered aromatic ring optionally substituted with 1 to 4 substituents individually selected from R_2, and fused polyaromatic rings optionally substituted with one or more substituents selected from R_3 wherein R_1, R_2 and R_3 are individually selected from the group R; and

wherein X is selected from the group consisting of CO, O, S, SO, SO_2, Se, SeO, SeO_2, Te, TeO, TeO_2, CR_4R_5, NR_4, SiR_4R_5, GeR_4R_5, PR_4 where R_4 and R_5, which may be the same or different, are selected from the group R; and

wherein Y is individually selected from the group consisting of CO, O, S, SO, SO_2, Se, SeO, SeO_2, Te, TeO, TeO_2, CR_6R_7, NR_6, SiR_6R_7, GeR_6R_7, PR_6 and Z is selected from CR_8 or N where R_6, R_7 and R_8 which may be the same or different, are selected from the group R; and

wherein Z is individually selected from the group consisting of CO, O, S, SO, SO_2, Se, SeO, SeO_2, Te, TeO, TeO_2, CR_9R_{10}, NR_9, SiR_9R_{10}, GeR_9R_{10}, PR_9 and Y is selected from CR_{11} or N where R_9, R_{10} and R_{11} which may be the same or different, are selected from the group R; and

Q_3 and Q_4 may be 0, 1 or more than 1 substituents that are individually selected

from the group consisting of R_{12}, a fused 5-memebered ring or a 6-membered aromatic ring optionally substituted with 1 to 4 substituents individually selected from R_{13}, and fused polyaromatic rings optionally substituted with one or more substituents selected from R_{14} wherein R_{12}, R_{13} and R_{14} are individually selected from the group R; and

R is the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted aralkyl group, a halide atom, a hydroxy group, a substituted or unsubstituted amine group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted thioalkyl group;

wherein the infrared dye absorbs strongly in the near infrared region of the spectrum but poorly in the visible region of the spectrum.

2. An infrared dye composition comprising a molecule that can be described according to claim 1.

3. An infrared absorbing dye composition comprising a molecule in accordance to claim 1 wherein bulky substituents are utilized.

4. An infrared absorbing compound according to claim 1 wherein one or more polar group substituents such as $-SO_3H$, $-NH_2$ and $-CN$ are utilized.

5. A solvent-based ink composition comprising a molecule that can be described according to claim 1.

6. A solvent-based ink according to claim 4 which is ink jet printer ink.